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1	METHOD AND APPARATUS FOR DISPLAYING ADVERTISEMENTS
2	ON A VEHICLE
3	
4	This invention relates to advertisements, and
5	relates more particularly but not exclusively to a
6	system for selectively attaching advertisements to
7	the sides of road vehicles or fixed sites in a
8	readily demountable manner, and to a method of
9	adapting road vehicles for the selective display of
10	advertisements.
11	
12	At present, static exterior advertisements are
13	achieved using posters attached to a building
14	surface or a panel provided on the building surface
15	The print medium used is typically paper which is
16	pasted to the surface using an adhesive. Such
17	advertisements require considerable effort to
18	install and remove the paper medium, printing costs
19	are relatively high and planning restrictions apply
20	
21	Furthermore, currently there are many load-carrying
22	road vehicles having substantially vertical sides

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1 which are either plain, or carry minimal information 2 (e.g. merely the name of a transport company). 3 These vehicle sides are extensively exposed to the sight of the general public, not least because the 4 5 majority of journeys of load-carrying road vehicles 6 take place on public roads that are also extensively used by pedestrians and/or users of personal road 7 8 transport and/or passengers in public road 9 transport. Consequently, the sides of load-carrying 10 road vehicles represent a facility for mobile 11 advertising that currently tends to be used only by 12 the vehicle owners for self-advertisement. Some use of the exteriors of road vehicles is known for 13 14 advertising by organisations other than the vehicle owner, but such advertising is currently limited to 15 16 public transport vehicles that carry human 17 passengers rather than inanimate cargoes, and the 18 advertisements are either pasted-on paper, or in the 19 nature of bodywork painting that is substantially 20 permanent and not changeable without time-consuming 21 repainting of the vehicle. 22 23 US 5,845,423 and US 5,657,566 address the problem of 24 providing advertisements on the sides of load-25 carrying road vehicles, but the effectiveness of 26 their solutions is hampered by the fact that the 27 vehicles need extensive structural modification in 28 the form of added rails, mounting brackets and fasteners and the like, to allow the mounting and 29 30 removal of advertisement panels. Moreover the 31 advertisement panels themselves are complicated and 32 relatively expensive. Moreover the advertisement

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1 panels can be used only with rigid sided vehicles, 2 since they do not allow simple access to the side 3 curtains of flexible sided vehicles, which provide access to the load area by allowing the removal or 4 5 rolling up of flexible side curtains attached to the 6 frame of the vehicle: 7 It is an object of the present invention to provide 8 an alternative system and method for providing 9 static exterior advertisements which require less 10 11 effort to install or remove, reduce printing costs and avoid planning restrictions. 12 13 14 It is a further object of the present invention to 15 provide a system and a method for enabling mobile 16 advertisements to be selectively mounted on load-17 carrying road vehicles in a manner which is simple 18 to carry out and which is cost effective, allowing 19 the use of economical advertisement panels and the 20 requiring minimal structural alterations to a 21 vehicle to enable it to carry advertisement panels. 22 It is a further object of the invention to provide a 23 system and a method for enabling mobile 24 advertisements to be selectively mounted on both 25 rigid sided and flexible sided road vehicles. 26 27 As used in this specification, the term "vehicle" 28 refers to a road vehicle possessing substantially vertical sides suitable for carrying advertisements, 29 30 such sides including but not being restricted to 31 permanently fixed sides, sides formed as one or more 32 panels that are demountable or hinged for providing

1	access to a cargo carried by the vehicle, and
2	curtain sides (i.e. curtains of more or less
3	flexible sheet material whose upper edges are
4	suspended from the vehicle, and whose lower edges
5	are clipped or strapped to the vehicle).
6	
7	As used in this specification, the term
8	"advertisement" refers to at least one essentially
9	two-dimensional image having an impression on a
10	spectator that is primarily or wholly visual.
11	
12	According to a first aspect of the present invention
13	there is provided an advertising panel for mounting
14	to a structure, the panel comprising a sheet of
15	plastic mesh material having an image applied to a
16	first side of the sheet, wherein the panel has an
17	elongate fastener provided on at least one
18	longitudinal edge, the elongate fastener having a
19	thickness greater than the sheet and being adapted
20	to engage with a corresponding slot provided on the
21	structure.
22	
23	Preferably, the advertising panel is mounted to the
24	structure of a vehicle, such as a side panel of a
25	vehicle. Alternatively, the advertising panel is
26	mounted to a static structure, such as an
27	advertising hoarding.
28 ·	
29	In one preferred embodiment the elongate fastener
30	comprises a longitudinal member held within a hem of
31	the sheet. Preferably the hem is formed by folding
32	an edge of the sheet around the elongate fastener

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and back against the sheet, then securing the edge 1 to the sheet. Securing may be carried out by 2 stitching, applying adhesive, thermal bonding, or 3 any suitable method. 4 5 In another preferred embodiment the elongate 6 fastener comprises a longitudinal member secured to 7 the sheet by an edging strip. Preferably the edging 8 strip passes around the elongate fastener and is 9 secured to each side of the edge of the sheet. 10 Securing may be carried out by stitching, applying 11 adhesive, thermal bonding, or any suitable method. 12 13 The longitudinal member is preferably flexible, for 14 example a rope, cord, rubber or plastic extrusion or 15 similar. Preferably the panel has an elongate 16 fastener provided on two opposite longitudinal 17 18 edges. 19 Preferably the sheet is flexible. Preferably the 20 sheet is of PVC, polyester or a combination thereof. 21 Preferably the mesh is provided with apertures 22 allowing air passage therethrough. Preferably the 23 sheet has an air permeability of at least 1000 24 litres per second at 100 pascal. 25 26 Preferably the sheet of the advertising panel is a 27 woven material. Preferably the warp and weft fibres 28 are bonded to each other at their intersections. 29 30 Preferably the panel is substantially rectangular. 31 In one embodiment the panel may be provided with an 32

1	extension piece at one or each of the two opposite
2	side edges. Preferably the extension pieces are
3	provided with securing means to allow them to be
4	wrapped around the corner of a vehicle and secured
5	to the vehicle. Preferably an extension piece is
6	provided on the leading edge of the sheet, the
7	leading edge being the edge nearest the front of the
8	vehicle when the panel is mounted on a vehicle.
9	Alternatively the leading edge of the sheet may be
10	provided with a continuous fastener which extends
11	substantially over the entire length of the leading
12	edge. In another embodiment the panel may be
13	provided with an elongate fastener as described
14	above on each of the two opposite side edges, the
15	fastener being adapted to engage with a track member
16	on the structure.
17	
17 18	According to a second aspect of the present
	According to a second aspect of the present invention there is provided a vehicle, the vehicle
18	-
18 19	invention there is provided a vehicle, the vehicle
18 19 20	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the
18 19 20 21	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an
18 19 20 21 22	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface,
18 19 20 21 22 23	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh
18 19 20 21 22 23 24	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of
18 19 20 21 22 23 24 25	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate
18 19 20 21 22 23 24 25 26	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided on at least one longitudinal edge,
18 19 20 21 22 23 24 25 26 27	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided on at least one longitudinal edge, the elongate fastener having a thickness greater
18 19 20 21 22 23 24 25 26 27 28	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided on at least one longitudinal edge, the elongate fastener having a thickness greater than the sheet and engaged with said slot or slots
18 19 20 21 22 23 24 25 26 27 28 29	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided on at least one longitudinal edge, the elongate fastener having a thickness greater than the sheet and engaged with said slot or slots
18 19 20 21 22 23 24 25 26 27 28 29	invention there is provided a vehicle, the vehicle having a wall provided with a slot or slots on the exterior surface thereof, the vehicle having an advertising panel mounted on said exterior surface, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided on at least one longitudinal edge, the elongate fastener having a thickness greater than the sheet and engaged with said slot or slots on said vehicle.

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1 invention. Preferably the exterior surface is on a side wall of the vehicle. 2 3 Preferably the slot or slots are provided in one or 4 more track members bonded to the side wall by 5 adhesive. Alternatively the track members may be 6 secured to the side wall by fixing means such as 7 bolts, screw, rivets or similar. Preferably the 8 track members are extruded members. Preferably the 9 slot or slots are shaped to allow keying of the 10 elongate fastener with the slot or slots. In one 11 preferred embodiment track members shaped to allow 12 keying of the elongate fastener are provided on the 13 upper and lower edges of the exterior surface, while 14 lateral fastening members for securing the vertical 15 side edges of the advertising panel are provided at 16 the vertical side edges of the exterior surface. 17 The lateral fastening members may be push-fit track 18 19 members shaped to allow reversible snap engagement of the elongate fastener. Alternatively the lateral 20 fastening members may be releasable clamping members 21 which permit the clamping of the elongate fastener 22 in a plurality of positions. Alternatively the 23 lateral fastening members may be mutually engageable 24 fastening means provided on the side wall and the 25 advertising panel, such as hook and loop fasteners 26 or 3MTM Dual LockTM. 27 28 The track members may extend continuously over the 29 length of the elongate fastener. Alternatively, the 30 track members are provided as discrete track members 31 spaced at regular intervals on the vehicle. 32

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1	According to a third aspect of the present invention
2	there is provided a vehicle, the vehicle having a
3	load bearing volume at least partially enclosed by a
4	curtain, said curtain being provided with a slot or
5	slots on the exterior surface thereof, the vehicle
6	having an advertising panel on said exterior
7	surface, the panel comprising a sheet of plastic
8	mesh material having an image applied to a first
9	side of the sheet, wherein the panel has an elongate
10	fastener provided on at least one longitudinal edge,
11	the elongate fastener having a thickness greater
12	than the sheet and engaged with said slot or slots
13	on said vehicle.
14	
15	Preferably the advertising panel is a panel
16	according to the first aspect of the present
17 .	invention.
18	
19	Preferably the slot or slots are provided in one or
20	more track members bonded to the curtain by
21	adhesive. Alternatively they may be secured to the
22	curtain by thermal bonding, ultrasonic bonding,
23	stitching, moulding or similar. Alternatively the
24	track members may be secured to the curtain by
25	fixing means such as bolts, screw, rivets or
26	similar, preferably in conjunction with a washer
27	plate on the opposite surface of the curtain.
28	Preferably the track members are extruded members.
29	Preferably the slot or slots are shaped to allow
30	keying of the elongate fastener with the slot or
31	slots. In one preferred embodiment track members
32	shaped to allow keying of the elongate fastener are

1	provided on the upper and lower edges of the
2	exterior surface, while lateral fastening members
3	for securing the vertical side edges of the
4	advertising panel are provided at the vertical side
5	edges of the exterior surface. Backing plates may
6	be provided on the interior surface of the curtain
7	with the lateral fastening members. The lateral
8	fastening members may be push-fit track members
9	shaped to allow reversible snap engagement of the
L O	elongate fastener. Alternatively the lateral
11	fastening members may be releasable clamping members
12	which permit the clamping of the elongate fastener
L3	in a plurality of positions. Alternatively the
L 4	lateral fastening members may be mutually engageable
L5	fastening means provided on the curtain and the
L 6	advertising panel, such as hook and loop fasteners
17	or 3M <sup>TM</sup> Dual Lock <sup>TM</sup> .
L 8	
19	Preferably the track members are provided as
20	discrete track members spaced at regular intervals
2.0	discrete track members bhaced as redarrar intervals
21	on the vehicle.
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21	·
21 22	on the vehicle.
21 22 23	on the vehicle.  According to a fourth aspect of the present
21 22 23 24	on the vehicle.  According to a fourth aspect of the present invention there is provided a method of modifying a
21 22 23 24 25	on the vehicle.  According to a fourth aspect of the present invention there is provided a method of modifying a vehicle to display at least one advertising panel on
21 22 23 24 25 26	According to a fourth aspect of the present invention there is provided a method of modifying a vehicle to display at least one advertising panel on at least one surface of the vehicle, the panel
21 22 23 24 25 26	According to a fourth aspect of the present invention there is provided a method of modifying a vehicle to display at least one advertising panel on at least one surface of the vehicle, the panel comprising a sheet of plastic mesh material having
21 22 23 24 25 26 27	According to a fourth aspect of the present invention there is provided a method of modifying a vehicle to display at least one advertising panel on at least one surface of the vehicle, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet,
21 22 23 24 25 26 27 28	According to a fourth aspect of the present invention there is provided a method of modifying a vehicle to display at least one advertising panel on at least one surface of the vehicle, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided
21 22 23 24 25 26 27 28 29	According to a fourth aspect of the present invention there is provided a method of modifying a vehicle to display at least one advertising panel on at least one surface of the vehicle, the panel comprising a sheet of plastic mesh material having an image applied to a first side of the sheet, wherein the panel has an elongate fastener provided on at least one longitudinal edge, the elongate

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securing one or more slotted track members in a 1 predetermined pattern on the surface of the vehicle 2 or on a curtain adapted to be mounted on the surface 3 of the vehicle, and 4 releasably attaching the advertising panel to 5 the one or more slotted track members by engaging 6 the elongate fastener in the slots provided on the 7 one or more slotted track members. 8 9 Preferably the advertising panel is a panel 10 according to the first aspect of the present 11 invention. 12 13 Preferably the advertising panel is substantially 14 rectangular having upper and lower longitudinal 15 edges and two side edges, and elongate fasteners at 16 the upper and lower longitudinal edges are engaged 17 in the slots provided on the one or more slotted 18 track members. The method may include the further 19 20 step of: releasably attaching the side edges of the 21 advertising panel to one or more releasable clamping 22 23 members. 24 Preferably at least one side edge is provided with 25 an elongate fastener, and the side edge is attached 26 to the one or more releasable clamping members by 27 clamping the elongate fastener in a selected one of 28 a plurality of positions, to adjust the lateral 29 tension in the advertising panel. Push-fit track 30 members may be used instead. 31 32

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According to a fifth aspect of the present invention 1 there is provided an advertising panel for mounting 2 to a structure, the panel comprising a sheet of 3 plastic material having an image applied to a first 4 side of the sheet, wherein the panel has a plurality 5 of resilient attachment means provided along at 6 least one edge of the panel. Preferably the panel 7 . is of mesh material. 8 9 According to a sixth aspect of the present invention 10 there is provided a vehicle having a rear door, the 11 rear door having mounted thereon an advertising 12 panel according to the fifth aspect of the present 13 invention. Preferably the rear door is a roller 14 shutter door. Preferably the rear door has 15 attachment fixings secured thereto, each attachment 16 means being attached to an attachment fixing. 17 Preferably the resilient attachment means are 18 adapted to allow elastic extension of the attachment 19 means when the roller shutter door is in its rolled 20 state with the advertising panel mounted thereon. 21 22 Preferably the resilient attachment means comprises 23 elastic tension members of natural or synthetic 24 rubber. These may be in the form of bands, loops, 25 rods or any suitable form. They may pass through an 26 eyelet in the panel, or they may be attached to the 27 panel by any suitable securing means, including 28 fasteners, rivets, adhesive and stitching. 29 30 Preferably the sheet is flexible. Preferably the 31 sheet is of PVC, polyester or a combination thereof. 32

1	Preferably the mesh is provided with apertures
2	allowing air passage therethrough. Preferably the
3	sheet has an air permeability of at least 1000
4	litres per second at 100 pascal.
5	
6	Preferably the sheet of the advertising panel is a
7	woven material. Preferably the warp and weft fibres
8	are bonded to each other at their intersections.
9	
10	Embodiments of the invention will now be described
11	by way of example only, with reference to the
12	drawings in which:
13	_
14	Fig. 1 shows a curtain-sided lorry provided with
15	slotted track members to allow attachment of an
16	advertising panel according to the invention;
17	·
18	Fig. 2 shows a rigid-sided lorry provided with
19	slotted track members to allow attachment of an
20	advertising panel according to the invention;
21	· ·
22	Fig. 3 shows the lorry of Fig. 1 with an advertising
23	panel attached;
24	
25	Fig. 4 shows the lorry of Fig. 2 with an advertising
26	panel attached;
27	
28	Fig. 5 shows a slotted track member and backing
29	plate used to attach an advertising panel according
30	to one embodiment of the invention;
31	,

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Fig. 6 shows a sectional view of the slotted track 1 member and backing plate of Fig. 5 attached to a 2 3 curtain; Fig. 7 shows a releasable clamping member and 5 backing plate used to attach an advertising panel 6 according to another embodiment of the invention; 7 8 Fig. 8 shows a sectional view of the releasable 9 clamping member and backing plate of Fig. 7 attached 10 11 to a curtain; 12 Figs. 9a to 9h show sectional views of slotted track 13 members and the attachment of the edge of the 14 advertising panel according to various further 15 embodiments of the invention; 16 17 Figs. 10 and 11 show alternative edge arrangements 18 19 for the panels of Figs. 1 to 9; 20 Fig. 12 shows a cross-sectional view of a push-fit 21 track member which can be used to secure the side 22 edges of the panels of Figs. 1 to 9; 23 24 Fig. 13 shows a vehicle having a roller shutter door 25 equipped to carry an advertising panel according to 26 27 the invention; 28 Figs. 14a and 14b are partial sectional views of the 29 roller shutter door of Fig. 13 with an advertising 30 panel attached in the unrolled and rolled positions; 31 32

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Fig. 15 shows an attachment means for the 1 advertising panel of Fig. 14a; and 2 3 Fig. 16 shows various alternative attachment means 4 for the advertising panel of Fig. 14a. 5 6 Fig. 1 shows a vehicle in the form of a lorry 10 7 having a load area 12 which is covered on each 8 longitudinal side by a curtain 14. The curtain 14 9 is secured to the vehicle 10 at its upper edge and 10 is tensioned in a conventional manner by means of 11 tensioning straps 18 which connect the lower edge of 12 the curtain to the vehicle. The curtain 14 and 13 straps 18 are well known in the art and may be of 14 any suitable flexible material. Typically the 15 curtain 14 is of reinforced PVC while the straps 18 16 are of nylon webbing. 17 18 The surface of the curtain 18 has a number of 19 slotted track members 30 fixed to it, seen more 20 clearly in Figs. 5 and 6, arranged in an upper row 21 and a lower row. Typically these coincide with 22 alternate vertical strengthening straps 18 of the 23 curtain 14. They may be fixed by adhesive 42 or 24 other suitable means of securing the members to the 25 curtain, including fixing means such as bolts, 26 screw, rivets, staples or similar. In practice the 27 combination of stainless steel machine screws which 28 pass through apertures 44 in the track member 30 and 29 engage with integral nuts 45 in a backing plate 31 30 has been found to be an effective fastening means. 31 Alternatively the slotted track members may be 32

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secured to the curtain by thermal bonding, 1 ultrasonic bonding, stitching, moulding or similar. 2 The slotted track members 30 are of moulded or 3 extruded plastic and various other non-limiting 4 shapes are shown in Figs. 9a to 9f. The members 5 have a cylindrical passage 34 extending therethrough 6 and a slot 36 in one side, allowing access to the 7 8 passage 34. 9 The slotted track members 30 are selected and 10 positioned to engage with elongate fasteners 22 11 provided on the longitudinal edges 24 of an 12 advertising panel 20, as shown in Figs. 5, 12 and 13 14 13. 15 Two vertical push-fit track members 40, shown in 16 Fig. 12, are also secured to the curtain, one at 17 each side. These are secured to the curtain in the 18 same way as the slotted track members 30, with 19 backing plates (not shown) if appropriate. 20 21 Fig. 2 shows a lorry 10 having a load area 12 which 22 is covered on each longitudinal side by a rigid wall 23 The arrangement of slotted track members 30 on 24 the rigid wall 16 can be the same as that described 25 above with respect to the curtain 14 of Fig. 1, 26 although in Fig. 2 two continuous slotted track 27 members 32 are shown, one upper member and one lower 28 member, having the same cross-section as the shorter 29 track member illustrated in Figs. 5 and 6. 30 Continuous track members 32 typically comprise a 31 number of 3 metre long track members 32 fixed in

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The members 32 are bonded to 1 abutting relationship. the wall by means of high bond double sided adhesive 2 tape 42 or other adhesive, although it is to be 3 understood that other suitable means of securing the 4 members to the wall may be used, including fixing 5 means such as bolts, screw, rivets, staples or 6 similar. As in Fig. 1, two vertical push-fit track 7 members 40 are also secured to the wall, one at each 8 side. These are secured to the wall in the same way 9 . as the slotted track members 32. 10 11 Fig. 3 shows the curtain sided lorry 10 of Fig. 1 12 with an advertising panel 20 fixed to the curtain 14 13 using fasteners 22 which engage with the slotted 14 track members 30 and the push-fit track members 40. 15 The panel 20 is described in more detail below. 16 edges 24 of the panel 20 are threaded through the 17 slots 36 starting at one end of the lorry 10. While 18 Fig. 3 shows the panel 20 on a side wall of the 19 vehicle 10, it is to be understood that the panel 20 may be fitted to any surface of the vehicle 10, 21 including the rear surface or the roof. The panel 22 20 is typically one metre shorter than the curtain 23 14 in length, and 2 metres in height. 24 25 Fig. 4 shows the rigid sided lorry 10 of Fig. 2 with 26 an advertising panel 20 fixed to the wall 16 in the 27 manner described above with reference to Fig. 3. 28 The panel 20 is typically dimensioned to cover most 29 of the surface area of the wall 16. 30 31

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In both cases the vertical edges 26 of the panel 20 1 are engaged with the resilient extruded PVC push-fit 2 track members 40 as shown in Fig. 14. However the 3 vertical edges 26 may alternatively be attached by 4 any other suitable means. For example, a strip of 5 . hook and loop fastener may be provided at each 6 vertical edge of the advertising panel 20 to engage 7 with a corresponding strip of hook and loop fastener 8 provided on the wall 16 or curtain 14. Instead of 9 hook and loop fastener other releasable fasteners 10 may be used, such as  $3M^{TM}$  Dual Lock $^{TM}$  or releasable 11 clamping members 80, described below. Alternatively 12 the plastic mesh material of the panel 20 may be 13 extended around the corner of the vehicle 10 and 14 securing it to the structure of the vehicle in any 15 suitable way. 16 17 The construction of the advertising panel 20 will 18 now be described with reference to Figs. 5, 6, 10 19 The panel comprises a sheet 28 of plastic 20 mesh material. Typically the mesh material 21 comprises a polyester or polypropylene base fabric 22 coated with PVC. The base fabric may have between 3 23 and 10 (preferably 5) threads per cm in both warp 24 and weft directions. Flexible plasticised PVC is 25 applied to both sides to produce a material having a 26 weight of between 100 and 800 g/m<sup>2</sup>, preferably 27 between about 200 and 550  $g/m^2$ , such that the warp 28 and weft fibres are bonded to each other at their 29 intersections. 30 31

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The apertures in the mesh allow an air permeability 1 of between 1000 and 6000 litres/second at 100 2 pascal, preferably about 2800 litres/second. A 3 suitable mesh is that sold by VUFLEX Digital under 4 the name VUFLEX Digital 550, although it is to be 5 understood that any suitable plastic mesh may be 6 used. The air permeability ensures that the panel 7 remains flat against the supporting surface, whether 8 it be a solid wall of a vehicle or a curtain. Air 9 pressure either side of the panel is equalised, 10 thereby preventing flapping of the panel against the 11 supporting surface. 12 13 The mesh must be capable of being printed on, to 14 provide an advertising image on one side. 15 suitable printing process may be used, such as laser 16 printing or screen printing. The apertures must be 17 small enough such that the effect of the advertising 18 panel when mounted on a solid surface and viewed 19 from a distance is of an opaque panel. 20 particular embodiment the plasticised warp and weft 21 fibres have a width of about 1 mm, while the 22 apertures are about 1 mm square. An opaque effect 23 is produced if the apertures make up about 25% or 24 less of the area of the panel. If the apertures 25 make up more than about 35% of the area of the panel 26 the opacity effect is diminished. 27 28 Reinforcing strips (not shown) of reinforced PVC or 29 similar material may be bonded to any or all of the 30 edges of the mesh sheet 28 to prevent the 31 advertising panel 20 from tearing or stretching in 32

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The reinforcing strips may be bonded by 1 adhesive or by ultrasonic welding. The strips may 2 be of polypropylene or polyester scrim coated with 3 PVC for easy joining to the mesh sheet 28. The 4 thickness of the strips is chosen so that the sheet 5 28 can be subject to the chosen printing process 6 even with the strips attached. Typically the 7 reinforcing strips are between 5 and 15 cm wide, and 8 extend to the perimeter of the sheet 28. 9 10 Elongate fasteners 22 are bonded to the longitudinal 11 edges 24 of the mesh sheet 28, with or without 12 reinforcing strips, by wrapping the edge of the 13 sheet around the fastener 22 and stitching with 14 thread 56 or bonding to form a hem 50, as in Fig. 15 12, or by attaching and bonding an edge strip 52, as 16 in Fig. 13, of any suitable plastic material. 17 Thermal or adhesive 58 bonding may be used. The 18 elongate fastener 22 comprises a cord or rope 54, or 19 extruded flexible plastic or rubber, held in the hem 20 50 or edge strip 52. The cord or rope 54 may be 21 free to slide in the hem 50 or edge strip 54, or may 22 be restrained or bonded to the hem 50 or edge strip 23 Similar elongate fasteners 22 are provided on 24 the vertical edges 26 of the panel if push-fit track 25 members 40 or releasable clamping members 80 are 26 used to secure the vertical edges. The edge strip 27 52 may be of the same material as the reinforcing 28 29 strips described above. 30 The panel is installed on a vehicle 10 by threading 31 the elongate fasteners 22 at the top and bottom 32

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edges of the panel 22 into the slotted track members 1 30,32 simultaneously and pulling the panel 2 horizontally until it extends from one vertical side 3 to the other of the supporting surface. 4 vertical edges of the panel are then secured using 5 any suitable securing means. 6 7 It has been found that it is advantageous to provide 8 a continuous fastener, preferably a fastener 22 9 which can engage with the push-fit track member 40 10 or a fastener such as a hook and loop fastener (not 11 shown), extending all the way along the leading edge 12 of the advertising panel 20. The leading edge is 13 that edge which is nearer the front of the vehicle 14 in use. The use of a continuous fastener engaging 15 with a corresponding continuous fastener on the 16 vehicle 10 prevents the leading edge of the panel 20 17 lifting away from the vehicle at any point, and 18 helps to hold the panel 20 to the wall 16 or curtain 19 14 without flapping. The same effect can be 20 achieved by continuing the panel around the corner 21 of the vehicle and securing it in place by any 22 suitable means to the end wall of the vehicle. 23 24 Particular arrangements of fasteners are provided 25 for particular models of vehicles 10 and their 26 corresponding advertising panels 20. For example a 27 Transit® van might carry a particular size of 28 advertising panel 20; panels for these vans would 29 carry a particular pattern of fasteners. 30 Corresponding fasteners on Transit® vans would be 31 fixed to the side wall 16 of the van in a 32

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1 corresponding pattern using a particular Transit® Similarly, a particular make of trailer 2 might carry a particular larger size of advertising 3 panel 20; panels for these trailers would carry a 4 5 different particular pattern of fasteners. Corresponding fasteners on the trailers would be 6 fixed to the curtain 14 or side wall 16 of the 7 trailer in a corresponding pattern using a 8 9 particular trailer stencil. 10 Referring to Figs. 5 and 6, there is shown a 11 discrete slotted track member 30. It is to be 12 understood that the continuous track member 32 has 13 the same cross-section. The backing plate 31 used 14 to connect the track member 30 to a curtain 14 by 15 sandwiching the curtain 14 between the track member 16 30 and backing plate 31 has threaded sockets 45 17 which correspond in position to the apertures 44 in 18 19 the track member 30. Screws or bolts (not shown) 20 are used to secure the track member 30 and backing plate 31 together. Conventional bolts and nuts may 21 be used instead of threaded sockets. Corresponding 22 23 holes in the curtain 14 can be pre-formed or can be 24 formed by insertion of the screws into the apertures 25 44. 26 Referring to Figs. 9a to 9h, there are shown 27 alternative cross-sectional profiles 38a-h of the 28 29 discrete or continuous slotted track members 30, 32. 30 Profiles 38a-d and 38h have the slot 36 in a side face, while profiles 38e-g have the slot 36 in a 31 lower face so that the advertising panel 20 hangs .32

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straight, eliminating wear. Profiles 38a and 38b 1 are attached by bonding using adhesive 42 or 2 similar, while profiles 38c-h are attached using 3 fasteners (not shown) which pass through apertures 4 . 44. A washer plate (not shown) may be used with 5 nuts and threaded fasteners to secure the profiles 6 38c-h to a curtain 14, or conventional fasteners may 7 8 be passed through the apertures 44 to secure the profiles 38c-h to a rigid wall 16. 9 10 In the embodiment of Fig. 9h screw holes 44 for 11 securing profile 38h are provided in the passage 34, 12 so that they remain hidden in use. Light fittings 13 46 are provided at spaced intervals along the track 14 member for illumination of the advertising panel 20. 15 16 Referring to Figs. 7 and 8, there is shown a 17 releasable clamping member 80 which can be used 18 instead of the push fit track member 40 to secure 19 the lateral edges of the advertising panel 20, which 20 are provided with an elongate fastener 22 as 21 described above with reference to Figs. 3, 4, 10 and 22 The clamping member 80 comprises an upper plate 23 24 82 and a lower plate 84 joined by a hinge 86. upper and lower plates 82, 84 have corresponding 25 26 detent portions 88, 90 which engage with each other 27 in a snap fit to close the clamping member. 28 29 The upper and lower plates 82, 84 each have a ribbed 30 surface 92 which can accommodate the elongate 31 fastener 22 in a plurality of positions, such that 32 the advertising panel 20 can be tensioned laterally

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and held in the position required to maintain 1 2 tension. In this way the system can accommodate tolerances in the overall width of the advertising 3 panel 20 or in the position of the clamping members 4 80 while still ensuring that the advertising panel 5 20 remains flat against the surface to which on it 6 is mounted. The upper plate 82 has a handle portion 7 94 and a closure flange 96 which holds the mesh 28 8 9 of the panel 20 against the curtain 14 or wall 16. The clamping member can be secured to a curtain 14 10 using a backing plate 98 in the same way as 11 described above with reference to the track member 12 30 and backing plate 31. The upper and lower plates 13 82, 84, like the track members 30, are of plastic 14 such as polypropylene, and can be formed by . 15 extrusion. 16 In the embodiments described above, the advertising 17 panel 20 of the invention has been described with 18 19 reference to its mounting on a vehicle. However, it 20 is to be understood that the advertising panel can 21 be mounted on a fixed structure, such as a building or an advertising hoarding. In such cases slotted 22 track members of the type herein described may be 23 used to secure the advertising panel to the fixed 24 structure. However, it is to be understood that 25 suitable slots may be provided in other elements 26 attached to the structure, and the invention is not 27 to be limited to advertising panels mounted using 28 slotted track members or releasable clamping members 29 as described herein. In fixed or static structures 30 31 or where the effects of air movement relative to the

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advertising panel are not significant, the plastic 1 mesh may be replaced by a solid plastic sheet. 2 3 A method of attaching an advertising panel 20 to the 4 5 rear of a vehicle which may be provided with a roller shutter door is now described with reference 6 to Figs. 13 to 16. A vehicle 10 has a rear wall 60 7 having a roller shutter door 62. Attached to the 8 shutters of the door 62 at four corners are 9 attachment fixings 66, comprising a plate 70, a loop 10 72 and apertures 74 for fasteners (not shown) such 11 as screws, bolts, rivets or the like. An 12 advertising panel 20 of the type described above 13 with reference to Figs. 1 to 9 is attached to the 14 attachment fixings 66 by means of four resilient 15 attachment means 64, of natural or synthetic rubber. 16 Fig. 16 shows four possible shapes for the 17 attachment means 64a-d, but is not to be construed 18 as limiting on the shape. Moreover it is to be 19 understood that more than four attachment means 64 20 may be used, or alternatively more or fewer 21 resilient attachment means 64 may be used in 22 conjunction with some other means of fastening, such 23 as hook and loop fasteners (not shown) or the slot-24 engaging elongate fasteners 22 described above. 25 26 In the embodiment of Figs. 13 to 16 the advertising 27 panel can be used with resilient attachment means 64 28 only, so that the elongate fasteners 22 can be 29 The resilient attachment means 64 allow 30 omitted. stretching, so that when the roller shutter door 62 31 is opened by rolling the shutters 61 around a spool 32

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63, as shown in Fig. 14b, the attachment means 64 1 become elongated to allow for the increased 2 effective length between the top and bottom 3 attachment fixings 66 resulting from the separation 4 of adjacent shutters 61. 5 6 Modifications and variations of the above-described 7 embodiments can be adopted without departing from 8 the scope of the invention. 9